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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,426	10/12/2001	Darren Kenneth Rogers	1482(Touchstone)	1151
48642	7590	02/23/2005	EXAMINER	
PHILIP DOUGLAS LANE P.O. BOX 651295 POTOMAC FALLS, VA 20165-1295			VO. HAI	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 02/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/976,426

Applicant(s)

REED ET AL.

Examiner

Hai Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The art rejections over Stiller et al (US 5,888,469) are maintained.
2. The art rejections over McCullough, Jr. et al (US 5,312,678) are withdrawn in view of the present arguments. McCullough discloses the carbonaceous fibers which are not carbon foams as required by the claims. However, upon further consideration, a new ground of rejection is made in view of McCullough, Jr. et al (US 4,999,385).
3. The art rejections over Perkins et al (US 5,525,988) in view of McCullough, Jr. et al (US 5,312,678) are withdrawn in view of the present arguments. Perkins discloses a flexible foam with carbon particle dispersed throughout, which is completely different than carbon foam of the claimed invention as pointed out by Applicant.
4. All of the double patenting rejections are maintained until the submission of the terminal disclaimer.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 9-12, and 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Rogers et al (US 6,656,238). The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Rogers teaches a wall board comprising a carbon foam laminated to a fiber-reinforced polymer sheet (column 6, lines 10-25). The carbon foam is a coal-based carbon foam (column 6, lines 60-65). The particulate foal has a free swell index from 3.5 to 5.0 (column 2, lines 65-66). The carbon foam has a density from 0.1 to 0.3 g/cm<sup>3</sup> (column 7, lines 65-67). The particulate coal is heated in a pressurized non-oxidizing atmosphere having a pressure up to 500 psi to a temperature from 300°C to 700°C (column 3, lines 20-30). The carbonizing temperature is from 800°C to 1200°C (column 5, lines 55-60), which reads on Applicant's carbonizing temperature above 600 °C. Rogers does not specifically disclose the carbon foam having a dielectric constant and electrical resistivity as recited in the claims. However, it appears that the carbon foam of Rogers meets all the structural limitations and chemistry as required by the claims as discussed above. Therefore, it is the examiner's position that the dielectric constant and electrical resistivity would be inherently present. It seems from the claim, if one meets the

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structure recited, the properties must be met or Applicant's claim is incomplete. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Rogers does not teach or suggest the carbon foam being used as a radar emission absorbing material. However, it has been held that a recitation with respect to the manner in which a claimed carbon foam is intended to be employed does not differentiate the claimed carbon foam from a prior art carbon foam satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "radar emission absorbing material" impacts no definite structure to the claimed carbon foam and is therefore found inadequate to convey structure in any patentable sense. Accordingly, Rogers anticipates the presently claimed subject matter.

7. Claims 12, 14, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Klett et al (US 6,673,328). Klett teaches a composite material comprising a carbon foam core laminated to carbon-carbon face sheets (example 18). The carbon foam is prepared from coal tar pitch (example 1). Klett does not specifically disclose the carbon foam having a dielectric constant and electrical resistivity as recited in the claims. However, it appears that the carbon foam of Rogers meets all the structural limitations and chemistry as required by the claims as discussed above. Therefore, it is the examiner's position that the dielectric constant and electrical resistivity would be inherently present. It seems from the claim, if one meets the structure recited, the properties must be met or

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Applicant's claim is incomplete. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Klett does not teach or suggest the carbon foam being used as a radar emission absorbing material. However, it has been held that a recitation with respect to the manner in which a claimed carbon foam is intended to be employed does not differentiate the claimed carbon foam from a prior art carbon foam satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "radar emission absorbing material" impacts no definite structure to the claimed carbon foam and is therefore found inadequate to convey structure in any patentable sense. Accordingly, Klett anticipates the presently claimed subject matter.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
9. Claims 9-11, and 14-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stiller et al (US 5,888,469) substantially as set forth in the 07/28/04 Office Action. The art rejections over Stiller have been maintained for the following reasons. Applicant argues that Stiller and Applicant use different starting materials the do not have

identical composition because Applicant directly heats the original (non-extracted) bituminous coal particles to form a carbon foam whereas Stiller uses the extracted bituminous coal particles to form the carbon foam. The arguments are not found persuasive for patentability because they are not commensurate in scope with the claims. The non-extracted bituminous particles are not presently claimed to provide that right from very beginning, the starting materials of the present invention is chemically different from those of the Stiller invention. Applicant argues that the dielectric constant of the carbon foam is controlled by carbonizing the green foam at the temperature from 600°C to 800°C while Stiller discloses a carbonizing temperature of 975°C to 1025°C. Since the processes used to produce the carbon foam of the claimed invention and the carbon foam of the stiller invention are different, the properties of the carbon foams are different. Again, the arguments are not commensurate in scope with the claims. Nothing in claim 9 is specific about the carbonizing temperature in the range from 600°C to 800°C as argued by Applicant. Stiller discloses the carbonized temperature from 975°C to 1025°C, which reads on Applicant's carbonizing temperature above about 600°C. Applicant further argues that Stiller does not disclose or suggest a processing step wherein the particulate coal is heated in a pressurized non-oxidizing atmosphere having a pressure in the range of about 50 psi to about 500 psi, to a temperature ranging from about 300°C to 600°C to form a green foam. It is reminded that such limitations are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the

examiner's position that the carbon foam of Stiller is identical to or only slightly different than the claimed carbon foam prepared by the method of the claim, because both carbon foams are formed from the same particulate coal having the same particle size. The carbon foams have the same density and compressive strength. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Stiller. The examiner suggests that the carbonizing temperature in the range from 600°C to 800°C and time for soaking the carbon foam under an inert gas together (page 5, lines 1-10 of specification) should be incorporated in the claims to demonstrate that differences in the process steps lead to the different products with respect to the electrical resistivity. Therefore, the art rejections are thus maintained.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stiller et al (US 5,888,469) in view of Klett et al (US 6,673,328) substantially as set forth in the 07/28/2004 Office Action. Applicant argues that nowhere is claim 12 related to thermal insulating properties as argued by the examiner. Claim 12 recites to carbon foam located on the surface of a body that is capable of absorbing radar emissions. The thermal insulating properties are brought up to show how the two applied references are related to each other and thus the combination of the teachings of the two cited references to arrive at the presently claimed subject



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matter is strong and proper. Notably, none of the cited references teaches or suggests the carbon foam being used as a radar emission absorbing material. However, it has been held that a recitation with respect to the manner in which a claimed carbon foam is intended to be employed does not differentiate the claimed carbon foam from a prior art carbon foam satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "radar emission absorbing material" impacts no definite structure to the claimed carbon foam and is therefore found inadequate to convey structure in any patentable sense.

11. Claims 12, 14, 15 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCullough, Jr. et al (US 4,999,385). McCullough, Jr. teaches a flame retardant article comprising a carbon foam having a resistivity from 10 to  $10^3$  ohm-cm and a density from 0.25 to 12 pcf within the claimed ranges (column 4, lines 20-23 and 50-51). McCullough, Jr. does not specifically disclose the dielectric constant of carbon foam. However, it appears that the McCullough, Jr. foam has the volume resistivity within the claimed range and volume resistivity is related to dielectric constant. Therefore, it is not seen that the carbonaceous foam of McCullough, Jr. would have a dielectric constant outside the claimed range as the volume resistivity is within the claimed range. McCullough does not teach the carbon foam is used as a radar emission absorbing material. However, it has been held that a recitation with respect to the manner in which a claimed carbon foam is intended to be

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employed does not differentiate the claimed carbon foam from a prior art carbon foam satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Note *In re Best* 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made under 35 USC 102. It is the examiner's position that McCullogh, Jr. anticipates or strongly suggests the claimed subject matter.

### ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 9-11, and 14-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of US Patent No. 6,833,011 substantially as set forth in the 07/28/04 Office Action. Copending Application No. 09/976,172, filed October 12, 2001 is now US Patent No. 6,833,011.
14. Claim 12 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of US

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Patent No. 6,833,011 in view of in view of Klett et al (US 6,673,328) substantially as set forth in the 07/28/04 Office Action.

15. Claims 9-11, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238 substantially as set forth in the 07/28/04 Office Action.
16. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238 in view of Klett et al (US 6,673,328) substantially as set forth in the 07/28/04 Office Action.
17. Claims 9-11 and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239 substantially as set forth in the 07/28/04 Office Action.
18. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239 in view of Klett et al (US 6,673,328) substantially as set forth in the 07/28/04 Office Action.
19. All of the double patenting rejections made in the 07/28/2004 Office Action are sustained until the submission of the terminal disclaimer.
20. Claims 9-12, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-39 of U.S. Patent No. 6,814,765. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims 1-39 of US U.S.

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Patent No. 6,814,765 disclose the carbon foam meeting all the structural limitations and chemistry of the presently claimed subject matter except the dielectric constant and electrical resistivity. The carbon foam is formed from particulate coal having a free swell index within the claimed range. The carbon foam has a density within the claimed range. The carbon foam is basically formed by the same procedure recited in the claims, heating swellable particulate coal to form a green foam in the temperature and pressure condition similar to the condition as described in the present invention, cooling the green foam, and carbonizing the green foam to form a carbonized foam. The carbon foam is laminated to a sheet which reads on Applicant's surface of a body. Therefore, it is the examiner's position that the dielectric constant and electrical resistivity would be inherently present. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. The US Patent No. 6,814,765 does not teach or suggest the carbon foam being used as a radar emission absorbing material. However, it has been held that a recitation with respect to the manner in which a claimed carbon foam is intended to be employed does not differentiate the claimed carbon foam from a prior art carbon foam satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "radar emission absorbing material" impacts no definite structure to

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the claimed carbon foam and is therefore found inadequate to convey structure in any patentable sense.

21. No 102(e) art rejection is made over Rogers (US 6,814,765) because the present invention and Rogers '765 were subject to an obligation of assignment to the same person.

***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai Vo  
Tech Center 1700